

Amendments To The Claims:

1 – 11 (cancelled).

12. (currently amended) The redundant automation system as claimed in claim [3] 17, wherein said monitoring module senses for a presence of a vital sign from said first automation device for a change, and when no change occurs during a given cycle of operation, then makes the switchover to the second automation device, and wherein the switchover takes place in a jolt-free manner such that a portion of the data residing in the common memory area is immediately processed by the standby automation device as the current status image of the technical device and the automation system.

13 - 15 (canceled).

16. (currently amended) The method as claimed in claim [7] 18, wherein the switchover is performed in a jolt-free manner such that a portion of the data residing in the common memory area is immediately processed by the standby automation device as the current status image of the technical device and the automation system.

17. (new) A redundant automation system for controlling a technical device, comprising:

- a first automation device identified as a master automation device;
- a second automation device identified as a standby automation device; and,
- a memory unit operatively connected to the first and second automation devices that includes a common memory area that can be written to and read by the first and second automation devices wherein data present in the memory area is available in parallel to the first and second automation devices;
- a monitoring module operatively coupled to both said first and said second automation devices and being disposed to monitor operation of the master automation device for malfunctions;
- if a malfunction occurs, then a switchover from the master automation device to the standby automation device is performed, wherein the standby automation device takes over the function of the former master automation device; and,
- wherein the common memory area stores status data that describes current operating status of the technical device and of the automation system immediately prior to a time an error occurs in the master automation device.

18. (new) A method for operating a redundant automation system for controlling a technical device, comprising:

operating a first automation device as a master;

operating a second automation device as a standby;

storing status data of the first and second automation devices in a memory unit wherein a common memory area of the memory unit can be written to and read from both said first and said second automation devices, wherein the data present in the memory area is available in parallel to the automation devices;

sensing, with the use of a monitoring module operatively coupled to both said first and said second automation devices, for the presence of a vital sign from said first automation device for a change and when no change is sensed during a given cycle of operation, then making a switchover to the standby automation device that takes over the function of the former master automation device; and,

wherein there is present in the common memory area status data which describes the current operating status of the technical device and the automation system immediately before the technical device error occurs in the master automation device.

19. (new) A redundant automation system for controlling a technical device and having a master and a slave automation device, said system comprising:

a memory unit operatively connected to the master and the slave automation devices that includes a common memory area disposed for storing status data that describes the current operating status of the technical device and of the automation system immediately prior to a time an error occurs in the master operation device, said common memory area can be written to and read by both the master and slave automation devices such that the status data present in the memory area is available simultaneously and in parallel to the both the master and the slave automation devices;

a monitoring module operatively coupled to both said master and said slave automation devices and being disposed to monitor the operation of the master automation device for malfunctions, and if a malfunction occurs, then a switchover from the master automation device to the standby automation device is performed, wherein a portion of the status data residing in the common memory area is immediately processed by the standby automation device as the current status image of the technical device and the automation system, whereby the standby automation device takes over the function of the former master automation device in a jolt-free manner.

20. (new) The redundant automation system as claimed in claim 19, wherein said monitoring module senses for the presence of a vital sign from said master automation device for a change and when no change occurs in said vital sign during a given cycle of operation then making a switchover to said standby automation device, and wherein the status data stored in the common memory area includes all data describing a current operating status of the master and slave automation devices including the current values of the signals transmitted from the master automation device to the technical device and commands including current initial values of control algorithms which comprise at least one differential or integrating control element.